

Appl. No. 10/708,051
Docket No. PES-D-03-008/PES-0188

REMARKS / ARGUMENTS

Status of Claims

Claims 1-33 are pending in the application. Claims 1-33 stand rejected. Applicant has provided clarifying remarks regarding the allowability of Claims 1-33 and has added new Claims 34-37, leaving Claims 1-37 for consideration upon entry of the present Amendment.

Applicant respectfully submits that the rejections under 35 U.S.C. §103(a) have been traversed, that no new matter has been entered, and that the application is in condition for allowance.

Rejections Under 35 U.S.C. §103(a)

Claims 1-5, 8-15 and 18-33 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Tracewell et al. (U.S. Patent No. 6,046,921, hereinafter Tracewell) in view of Czajkowski et al. (U.S. Patent No. 6,503,649, hereinafter Czajkowski), in further view of Youn et al. (U.S. Publication No. 2002/0071290, hereinafter Youn).

Claims 6-7 and 16-17 stand rejected under 35 U.S.C. §103(a) as being unpatentable over the combined references as applied to Claim 1 above, and further in view of Nomura et al. (U.S. Publication No. 2001/0012207, hereinafter Nomura).

Applicant traverses these rejections for the following reasons.

Applicant respectfully submits that the obviousness rejection based on the References is improper as the References fail to teach or suggest each and every element of the instant invention in such a manner as to perform as the claimed invention performs. For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a prima facie case of obviousness. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). The Examiner must meet the burden of establishing that all elements of the invention are taught or suggested in the prior art. MPEP §2143.03.

Claims 1 and 11 each recite, inter alia:

“...each of the modules is coupled to the first motherboard to receive AC input

Appln. No. 10/708,051
Docket No. PES-12-03-008/PES-0188

voltage therefrom and to deliver DC output voltage thereto (the "therefrom/thereto" limitation);

each of the modules have a selectable operating voltage and a voltage balancing device for providing a series or parallel building block for the first motherboard, thereby further enabling the first motherboard to have an expandable power rating (the "series/parallel" limitation)...".

Claim 22 recites similar limitations albeit in process form.

Regarding the "therefrom/thereto" limitation

In view of the very language of the claims, Applicant is claiming that each module is coupled to the first motherboard in such a manner as to receive AC input voltage from the first motherboard, and to deliver DC output voltage to the first motherboard (the therefrom/thereto limitation). Each module is not just merely coupled to the motherboard, but each module must be coupled in such a manner as to receive *AC from* the motherboard and to deliver *DC to* the motherboard.

In rejecting the independent claims for obviousness, the Examiner alleges that Tracewell discloses the therefrom/thereto limitation by referring to power converter modules 250a-g, motherboard 376, and the disclosure at col. 8, lines 51-61, col. 9, line 46-48, and col. 14, lines 8-16. Present Office Action, pages 2-3

Applicant respectfully disagrees that Tracewell teaches all that the Examiner alleges it teaches.

In comparing Tracewell with the claimed invention, Applicant finds Tracewell at col. 11, lines 13-16, to disclose a power supply 300 having converter modules 250 mounted on motherboard 376, which Applicant submits are coupled, with the input/output voltage to/from the modules, in a substantially different way from the claimed invention.

Appln. No. 10/708,051
Docket No. PES-D-03-008/PES-0188

For example:

At col. 8, lines 53-61, Applicant finds Tracewell to disclose that converter modules 250 employ a *dc-to-dc* converter 252 with *inputs from motherboard* at pins 256, 258 (see Fig. 8).

At col. 6, line 55 through col. 7, line 8, Applicant finds Tracewell to disclose the use of a daughter board 200 and that the *input to the dc-to-dc converters* is a rectified *dc signal*.

At col. 9, lines 46-47, Applicant finds Tracewell to disclose that a three wire *ac input is applied to terminals 310 of power supply 300* (see Fig. 10).

At col. 9, lines 58-60, Applicant finds Tracewell to disclose that the *dc output from power supply 300 is at output connectors 268, 270* (for use by an end user), which are shown in Figs. 8 and 12 to be part of converter module 250.

From the foregoing disclosure and teaching of Tracewell, Applicant submits that Tracewell discloses and teaches converter modules 250 coupled to a motherboard 376 in such a manner where the modules receive rectified dc power from a motherboard 376 via pins 256, 258, or from a daughter board 200 (that is, the Tracewell modules 250 do not *receive ac input voltage from the motherboard*, as claimed), and delivers dc output to an end user via output connectors 268, 270 (that is, the Tracewell modules 250 do not *deliver dc output voltage to the motherboard*, as claimed).

As such, Applicant submits that the primary reference to Tracewell is deficient in disclosing all that the Examiner alleges it discloses. More specifically, Tracewell fails to disclose or teach the therefrom/thereto limitation. Applicant further submits that the secondary references do not cure this deficiency. Thus, a prima facie case of obviousness cannot be established.

Regarding the "series/parallel" limitation

In addition to the foregoing, Applicant is also claiming that each of the modules have a selectable operating voltage and a voltage balancing device for providing a series or parallel building block for the first motherboard, thereby further enabling the first motherboard to have an expandable power rating.

Appl. No. 10/708,051
Docket No. PES-D-03-008/PES-0188

In rejecting the independent claims, the Examiner alleges that Tracewell discloses the series/parallel limitation by virtue of Tracewell having multiple modules 250a-g connected to the motherboard 376, which are presumably connected only in parallel (see col. 7, lines 63-64). Present Office Action, page 3, citing Tracewell at col. 10, lines 13-26.

In comparing Tracewell with the claimed invention, Applicant finds Tracewell to be absent any disclosure or teaching of configuring each power converter module to have a selectable operating voltage and a voltage balancing device for providing a series or parallel building block for the first motherboard, thereby enabling the first motherboard and the first power converter to have an expandable power rating (as claimed for in Claim 22), or each of the modules having a selectable operating voltage and a voltage balancing device that allows selection between a series building block and a parallel building block for the first motherboard, thereby further enabling the first motherboard to have an expandable power rating (inherent in Claims 1 and 11, and more particularly claimed for in Claims 34 and 35).

The purpose of the series/parallel limitation is to claim a module that can be configured in either series or parallel on the motherboard, and not just parallel as disclosed and taught in Tracewell.

While Applicant believes that the language of Claims 1, 11 and 22 should be read as described above, Applicant has nonetheless added new Claims 34 and 35 to even more particularly describe the invention. No new matter has been added in Claims 34 and 35, as antecedent support can be found in the application as originally filed, such as at paragraph [0029] for example.

In view of the foregoing, Applicant submits that the primary reference to Tracewell is deficient in disclosing all that the Examiner alleges it discloses. More specifically, Tracewell fails to disclose or teach the series/parallel limitation. Applicant further submits that the secondary references do not cure this deficiency. Thus, a prima facie case of obviousness cannot be established.

Dependent claims inherit all of the limitations of the respective parent claim and any intervening claim.

Appln. No. 10/708,051
Docket No. P1:S-D 03-008/PHS-0188

In view of the foregoing, Applicant submits that the References fail to teach or suggest each and every element of the claimed invention and are therefore wholly inadequate in their teaching of the claimed invention as a whole, fail to motivate one skilled in the art to do what the patent Applicant has done, fail to offer any reasonable expectation of success in combining the References to perform as the claimed invention performs, and discloses a substantially different invention from the claimed invention, and therefore cannot properly be used to establish a prima facie case of obviousness. Accordingly, Applicant respectfully requests reconsideration and withdrawal of all rejections under 35 U.S.C. §103(a), which Applicant considers to be traversed.

Regarding new Claims 34-37

Applicant has added new Claims 34 and 35 as discussed above. No new matter has been added as also discussed above. For the reasons set forth above, Applicant submits that Claims 34 and 35 are allowable, and respectfully requests notice thereof.

Applicant has further added new Claims 36 and 37 to capture originally disclosed but unclaimed subject matter. No new matter has been added, as antecedent support can be found in the application as originally filed such as at paragraph [0030] for example. Applicant submits that not only are the prior art references of record deficient for the reasons set forth above, but that they are also deficient in disclosing or teaching the limitations of newly added Claims 36 and 37. For at least these reasons, Applicant submits that Claims 36 and 37 are allowable, and respectfully requests notice thereof.

If a communication with Applicant's Attorneys would assist in advancing this case to allowance, the Examiner is cordially invited to contact the undersigned so that any such issues may be promptly resolved.

The Commissioner is hereby authorized to charge any additional fees that may be required for this amendment, or credit any overpayment, to Deposit Account No. 06-1130.

Appln. No. 10/708,051
Docket No. PES-D-03-008/PES-0188

In the event that an extension of time is required, or may be required in addition to that requested in a petition for extension of time, the Commissioner is requested to grant a petition for that extension of time that is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to the above-identified Deposit Account.

Respectfully submitted,

CANTOR COLBURN LLP

Applicant's Attorneys

By: 

David Arnold

Registration No: 48,894

Customer No. 23462

Address: 55 Griffin Road South, Bloomfield, Connecticut 06002
Telephone: (860) 286-2929
Fax: (860) 286-0115